

*What Is Claimed Is:*

1. An isolated nucleic acid molecule comprising a first polynucleotide sequence at least 95% identical to a second polynucleotide sequence selected from the group consisting of:

(a) a polynucleotide fragment of SEQ ID NO:X as referenced in Table 1A;

(b) a polynucleotide encoding a full length polypeptide of SEQ ID NO:Y or a full length polypeptide encoded by the cDNA Clone ID in ATCC Deposit No:Z corresponding to SEQ ID NO:Y as referenced in Table 1A;

(c) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:Y or a polypeptide fragment encoded by the cDNA Clone ID in ATCC Deposit No:Z corresponding to SEQ ID NO:Y as referenced in Table 1A;

(d) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:Y or a polypeptide fragment encoded by the cDNA Clone ID in ATCC Deposit No:Z corresponding to SEQ ID NO:Y as referenced in Table 1A, wherein said fragment has biological activity;

(e) a polynucleotide encoding a polypeptide domain of SEQ ID NO:Y as referenced in Table 1B;

(f) a polynucleotide encoding a polypeptide domain of SEQ ID NO:Y as referenced in Table 2;

(g) a polynucleotide encoding a predicted epitope of SEQ ID NO:Y as referenced in Table 1B;

and

(h) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(g), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

2. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises a nucleotide sequence encoding a secreted form of SEQ ID NO:Y or a secreted form of the polypeptide encoded by the cDNA Clone ID in ATCC Deposit No:Z corresponding to SEQ ID NO:Y, as referenced in Table 1A.

3. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises a nucleotide sequence encoding the sequence identified as SEQ ID NO:Y or the polypeptide encoded by the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X, as referenced in Table 1A.

4. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises the entire nucleotide sequence of SEQ ID NO:X or the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X, as referenced in Table 1A.

5. The isolated nucleic acid molecule of claim 2, wherein the nucleotide sequence comprises sequential nucleotide deletions from either the C-terminus or the N-terminus.

6. The isolated nucleic acid molecule of claim 3, wherein the nucleotide sequence comprises sequential nucleotide deletions from either the C-terminus or the N-terminus.

7. A recombinant vector comprising the isolated nucleic acid molecule of claim 1.

8. A method of making a recombinant host cell comprising the isolated nucleic acid molecule of claim 1.

9. A recombinant host cell produced by the method of claim 8.

10. The recombinant host cell of claim 9 comprising vector sequences.

11. A polypeptide comprising a first amino acid sequence at least 95% identical to a second amino acid sequence selected from the group consisting of:

(a) a full length polypeptide of SEQ ID NO:Y or a full length polypeptide encoded by the cDNA Clone ID in ATCC Deposit No:Z corresponding to SEQ ID NO:Y as referenced in Table 1A;

(b) a secreted form of SEQ ID NO:Y or a secreted form of the polypeptide encoded by the cDNA Clone ID in ATCC Deposit No:Z corresponding to SEQ ID NO:Y as referenced in Table 1A;

(c) a polypeptide fragment of SEQ ID NO:Y or a polypeptide fragment encoded by the cDNA Clone ID in ATCC Deposit No:Z corresponding to SEQ ID NO:Y as referenced in Table 1A;

(d) a polypeptide fragment of SEQ ID NO:Y or a polypeptide fragment encoded by the cDNA Clone ID in ATCC Deposit No:Z corresponding to SEQ ID NO:Y as referenced in Table 1A, wherein said fragment has biological activity;

(e) a polypeptide domain of SEQ ID NO:Y as referenced in Table 1B;

(f) a polypeptide domain of SEQ ID NO:Y as referenced in Table 2; and

(g) a predicted epitope of SEQ ID NO:Y as referenced in Table 1B.

12. The polypeptide of claim 11, wherein said polypeptide comprises a heterologous amino acid sequence.

13. The isolated polypeptide of claim 11, wherein the secreted form or the full length protein comprises sequential amino acid deletions from either the C-terminus or the N-terminus.

14. An isolated antibody that binds specifically to the isolated polypeptide of claim 11.

15. A recombinant host cell that expresses the isolated polypeptide of claim 11.

16. A method of making an isolated polypeptide comprising:

(a) culturing the recombinant host cell of claim 15 under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

17. The polypeptide produced by claim 16.

18. A method for preventing, treating, or ameliorating diabetes or conditions related to diabetes, comprising administering to a mammalian subject a therapeutically effective amount of the polypeptide of claim 11.

19. A method of diagnosing diabetes or conditions related to diabetes, or diagnosing susceptibility to diabetes or conditions related to diabetes in a subject comprising:

(a) determining the presence or absence of a mutation in the polynucleotide of claim 11; and

(b) diagnosing diabetes or conditions related to diabetes or the susceptibility to diabetes or conditions related to diabetes based on the presence or absence of said mutation.

20. A method of diagnosing diabetes or conditions related to diabetes, or diagnosing susceptibility to diabetes or conditions related to diabetes in a subject comprising:

(a) determining the presence or amount of expression of the polypeptide of claim 11 in a biological sample; and

(b) diagnosing diabetes or conditions related to diabetes or the susceptibility to diabetes or conditions related to diabetes based on the presence or amount of expression of the polypeptide.

21. A method for identifying a binding partner to the polypeptide of claim 11 comprising:

(a) contacting the polypeptide of claim 43 with a binding partner; and

(b) determining whether the binding partner effects an activity of the polypeptide.

22. The gene corresponding to the cDNA sequence of SEQ ID NO:X.

23. A method of identifying an activity in a biological assay, wherein the method comprises:

(a) expressing SEQ ID NO:X in a cell;

(b) isolating the supernatant;

(c) detecting an activity in a biological assay; and

(d) identifying the protein in the supernatant having the activity.

24. The product produced by the method of claim 20.